abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Specification:

Please substitute the following paragraphs for the pending paragraphs beginning at page 11, line 2 and ending at page 12, line 2:

Figures 1A and 1B are histograms of a densitometric scan of SDS-PAGE of samples of fetal bovine serum (FBS) prepared in powdered form by the methods of the invention (Figure 1A) and conventional liquid FBS (Figure 1B).

Figures 2A and 2B are composites of line graphs of growth (Figure 2A) and passage success (Figure 2B) of SP2/0 cells in Dulbecco's Modified Eagle's Medium (DMEM) supplemented with 2% (w/v) FBS prepared in powdered form by the agglomeration methods of the invention.

Figures 3A and 3B are composites of histograms of spectrophotometric scans (λ = 200-350 nm) of powdered fetal bovine serum (FBS) prepared by spray-drying according to the methods of the invention (Figure 3A) or of standard liquid FBS (Figure 3B).

Figures 4A and 4B are composites of line graphs showing the pH titration (buffer capacity), on two different dates (Figures 4A and 4B), of various dry powdered media (DPM) prepared by the methods of the invention or by ball-milling, with or without the addition of sodium bicarbonate.

Figures 5A and 5B are composites of bar graphs showing the effect of agglomeration on dissolution rates (in water) of Opti-MEM I™ (Figure 5A) or DMEM (Figure 5B). Media were agglomerated with water or FBS as indicated.

Figures 6A and 6B are composites of line graphs showing growth of SP2/0 cells in agglomerated Opti-MEM I™ (Figure 6A) or DMEM (Figure 6B), both containing 2% FBS.

Figures 7A, 7B and 7C are composites of line graphs showing growth over seven days of SP2/0 cells (Figure 7A), AE-1 cells (Figure 7B) and L5.1 cells (Figure 7C) in agglomerated DMEM containing 10% FBS.

Figures 8A and 8B are composites of line graphs showing passage success of SP2/0 cells in Opti-MEM I™ (Figure 8A) or DMEM (Figure 8B), agglomerated with either water or FBS, supplemented with 2% FBS.

Figures 9A, 9B and 9C are composites of line graphs showing passage success of SP2/0 cells (Figure 9A), AE-1 cells (Figure 9B) and L5.1 cells (Figure 9C) in DMEM agglomerated with FBS and sodium bicarbonate and supplemented with 10% FBS.

Please substitute the following paragraphs for the pending paragraphs beginning at page 12, line 10 and ending at page 12, line 17:

Figures 11A and 11B are line graphs of AE-1 cells cultured over six or seven days in medium containing 2% (▲) or 10% (◆) liquid fetal bovine serum (FBS), or 2% (✖) or 10% (■) powdered FBS prepared by the spray-drying methods of the invention. Duplicate experiments are shown in Figures 11A and 11B.

a2

Figures 12A and 12B are line graphs of SP2/0 cells cultured over seven days in medium containing 2% (▲) or 10% (◆) liquid FBS, or 2% (✖) or 10% (■) powdered FBS prepared by the spray-drying methods of the invention. Duplicate experiments are shown in Figures 12A and 12B.

Please substitute the following paragraphs for the pending paragraphs beginning at page 12, line 25 and ending at page 13, line 10:

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Figures 16A, 16B, 16C and 16D are a series of line graphs indicating the effect of γ irradiation on the ability of transferrin to support the growth of 293 cells over four passages. In each graph, cells were cultured in standard serum-free 293 medium (◆), in medium without transferrin (■), in medium containing powdered transferrin that had been γ irradiated at -70°C (▲) or room temperature (✱), or in medium containing powdered transferrin that had not been γ irradiated but that had been stored at -70°C (✖) or at room temperature (●). Results for each data point are the averages of duplicate flasks.

Fig. 16A: passage 1 cells;

Fig. 16B: passage 2 cells;

Fig. 16C: passage 3 cells;

Fig. 16D: passage 4 cells.

Figures 17A, 17B, 17C and 17D are a series of bar graphs indicating the effect of γ irradiation, under different irradiation conditions, on the ability of FBS to support growth of anchorage-independent cells (Figures 17A and 17B) and anchorage-dependent cells (Figures 17C and 17D) at first (Px1), second (Px2) and third (Px3) passages.

Please substitute the following paragraphs for the pending paragraphs beginning at page 13, line 18 and ending at page 13, line 20:

Figures 19A and 19B are a series of line graphs depicting the buffering kinetics for RPMI-1640 culture media in various forms, with or without the addition of $NaHCO_3$.

Please substitute the following paragraph for the pending paragraph beginning at page 41, line 15 and ending at page 42, line 5.

The reconstituted nutritive media, media supplements, media subgroups and buffers may be used to culture cells according to standard cell culture techniques which are well-known to one of ordinary skill in the art. In such techniques, the cells to be cultured are contacted with the reconstituted media, media supplement, media subgroup or buffer of the invention under conditions favoring the cultivation of the cells (such as controlled temperature, humidity, lighting and atmospheric conditions). Cells which are particularly amenable to cultivation by such methods include, but are not limited to, bacterial cells, yeast cells, plant cells and animal cells. Such bacterial cells, yeast cells,

plant cells and animal cells are available commercially from known culture depositories, *e.g.*, American Type Culture Collection (Manassas, Virginia), Invitrogen (Carlsbad, California) and others that will be familiar to one of ordinary skill in the art. Preferred animal cells for cultivation by these methods include, but are not limited to, insect cells (most preferably *Drosophila* cells, *Spodoptera* cells and *Trichoplusa* cells), nematode cells (most preferably *C. elegans* cells) and mammalian cells (including but not limited to CHO cells, COS cells, VERO cells, BHK cells, AE-1 cells, SP2/0 cells, L5.1 cells, hybridoma cells and most preferably human cells such as 293 cells, PER-C6 cells and HeLa cells), any of which may be a somatic cell, a germ cell, a normal cell, a diseased cell, a transformed cell, a mutant cell, a stem cell, a precursor cell or an embryonic cell, and any of which may be an anchorage-dependent or anchorage-independent (*i.e.*, "suspension") cell.

In the Claims:

Please cancel claims 11-14, 17, 30 and 35 without prejudice or disclaimer.

Please substitute the following claim 1 for the pending claim 1:

1. (Once Amended) A method for producing an automatically pH-adjusting dry powdered culture medium, comprising:

(a) determining the ratio of pH-opposing forms of buffer salts required to be added to said powder to automatically provide a desired final pH upon reconstitution of said powder with a solvent; and